



Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137



Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-1294-19-F (R1)

Plant ID: 1294

Effective Date: 09/10/2019

Expiration Date: 09/30/2024

Revision Date: 07/07/2021

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Source: Altuglas International
4350 Camp Ground Road
Louisville, KY 40216

Owner: Altuglas LLC
100 PA Rt. 413
Bristol, PA 19007-3605

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve months and no later than ninety days prior to the expiration date.


Emission limitations to qualify for non-major status:

| | | | | |
|------------|------------------|-----|-----------|------------|
| Pollutant: | PM ₁₀ | VOC | Total HAP | Single HAP |
| Tons/year: | 100 | 100 | 25 | 10 |

Application No.: See **Application and Related Documents** table.

Public Notice Date: 08/08/2019, 05/20/2021

Permit writer: Chris Gerstle

DocuSigned by:

BDAE2992DEB24D7...

Air Pollution Control Officer
7/7/2021

Table of Contents

| | |
|--|----|
| Permit Revisions and Changes..... | 4 |
| Construction Permit Summary..... | 5 |
| Application and Related Documents | 5 |
| Abbreviations and Acronyms | 6 |
| Preamble | 7 |
| General Conditions | 7 |
| Plantwide Requirements | 11 |
| Facility Description..... | 11 |
| Applicable Regulations..... | 11 |
| Plantwide Specific Conditions..... | 12 |
| S1. Standards..... | 12 |
| S2. Monitoring and Record Keeping | 13 |
| S3. Reporting..... | 17 |
| Comments for Plantwide Requirements | 18 |
| Emission Unit: Bulk Loading/Shipping System..... | 20 |
| Applicable Regulations..... | 20 |
| Equipment | 20 |
| Control Devices | 21 |
| Specific Conditions..... | 22 |
| S1. Standards..... | 22 |
| S2. Monitoring and Record Keeping | 23 |
| S3. Reporting..... | 24 |
| Emission Unit KM Extruder System | 26 |
| Applicable Regulations..... | 26 |
| Equipment..... | 27 |
| Control Devices | 29 |
| Specific Conditions | 30 |
| S1. Standards..... | 30 |
| S2. Monitoring and Record Keeping | 32 |
| S3. Reporting..... | 35 |
| Emission Unit KM Packout System | 37 |
| Applicable Regulations | 37 |

| | |
|--|----|
| Equipment | 37 |
| Control Devices | 38 |
| Specific Conditions | 39 |
| S1. Standards | 39 |
| S2. Monitoring and Record Keeping | 39 |
| S3. Reporting | 41 |
| Emission Unit KS Polymer Sheet System | 42 |
| Applicable Regulations | 42 |
| Equipment | 43 |
| Control Devices | 45 |
| Specific Conditions | 46 |
| S1. Standards | 46 |
| S2. Monitoring and Record Keeping | 48 |
| S3. Reporting | 50 |
| Emission Unit IA1: Parts Washer | 52 |
| Applicable Regulations | 52 |
| Equipment | 52 |
| Control Devices | 52 |
| IA1 Specific Conditions | 53 |
| S1. Standards | 53 |
| S2. Monitoring and Record Keeping | 54 |
| S3. Reporting | 55 |
| Emission Unit IA2 Emergency Generators | 56 |
| Applicable Regulations | 56 |
| Equipment | 56 |
| Control Devices | 56 |
| IA2 Specific Conditions | 57 |
| S1. Standards | 57 |
| S2. Monitoring and Record Keeping | 60 |
| S3. Reporting | 61 |
| Insignificant Activities | 62 |
| Attachment A – Default Emission Factors, Calculation Methodologies, Stack Tests and Control Efficiencies | 64 |

Permit Revisions and Changes

| Permit No. | Public Notice Date | Issue Date | Change Type | Description/Scope |
|------------------|--------------------|------------|-------------|---|
| 40-06-F | 06/19/2006 | 08/03/2006 | Initial | Initial Issuance |
| 40-06-F (R1) | N/A | 08/31/2006 | Admin. | Correct the identification numbers for the Clr-Load and Red-Load Filters. Correct the pressure drop range of 18-108. Change gallons to pounds of product, since it is dry. |
| 40-06-F (R2) | 03/14/2010 | 04/26/2010 | Renewal | Renewal, RO Change, modify pressure drop |
| O-1294-19-F | 08/08/2019 | 09/10/2019 | Renewal | Renewal and incorporation of Construction Permits 29794-10-C and 35262-12-C(R3) ¹ |
| O-1294-19-F (R1) | 06/04/2021 | 07/07/2021 | Revision | <ul style="list-style-type: none"> Revised permit language based upon a December 2020 stack test on the KM and KS rotoclones and July 2020 stack test on the KM rotoclone Change of ownership |

¹ Permit 352626-12-C replaced the conditions of the Bagging Emission Sources unit (pg. 38-42) of the FEDOOP 40-06-F(R2). This permit also replaced the conditions of some repurposed equipment from the Bulk Loading System Emission Sources unit (pg. 8-14) as listed in the equipment table. This permit replaced the TAC limits from the Extruder Die System Emission Sources unit (S1.f.ii. pg. 20), and replaced the baghouse (16-328) pressure drop limit from Permit 29794-10-C (S2.a.ii.2)(b)).

Construction Permit revision R1 was to include the following process modifications: re-purposing of an additional existing Silo Process Collector (16-650) into the Sheet Line at an hourly capacity of 16 tons of pellets / hour, increasing the maximum hourly capacity of the other existing Silo Process Collector (16-655) to 16 tons of pellets / hour, increasing the maximum annual throughput of Silo 1 and 2 (10-161 and 11-161) to 10 million pounds / year each, equipping the two grinders (10-164 and 11-164) with a baghouse, and a new masking saw (11-500).

Construction Permit revision R2 was for the installation of a Dust Collector with Filter Bag Assembly as C-10-206 in place of the originally permitted baghouse.

Construction Permit revision R3 revised the maximum production rates for Line 10 (EP 10-120-004, 10-122) to 4,500 lb/hr and for Line 11 (11-120-002, 11-122) to 4,300 lb/hr and lowered abatement efficiency of baghouses B-04 and B-05 from 99% to 95% which control Line 10 and 11 trim saws (EP 10-163, 11-163). Line 10 and 11 extruder feed hoppers (EP 11-120-002, 11-172) was vented to baghouse 18-520 to decrease PM released into the plant air which creates a new emissions source, but is insignificant. There was also an increase in the maximum rate for grinders (EP 10-164, 11-164) to 7,000 lb/hr. Existing silo (EP 12-645) was repurposed to the KS line at capacity of 18 tons of pellets per hour. Tank 16-115 was modified to be used in monomer service with operational flexibility, used as a holding space during quality testing and vented to the Thermal Oxidizer when in service. Two new insignificant activity miter saws were added to cut corrugated cardboard.

Construction Permit Summary

| Permit No. | Issue Date | Description |
|---------------------------------------|--|---|
| 29794-10-C | 12/01/2010 | One (1) Premier Pneumatics Inc Baghouse (16-328; U-KM-KM2Rework), controlling emissions from the KM-2 Rework System (Rework Process Cyclone (16-331) and DR Process Cyclone (16-348)) |
| 35262-12-C, (R1), (R2), (R3) | 06/06/2012 12/13/2012 03/06/2013 03/06/2014 | Sheet extrusion lines 10 and 11 with 14 new pellet drying units, feed hoppers, one new pellet receiver, one new dryer system feed hopper, two new silos, two new grinders, three saws and three new baghouses. Repurposed existing equipment includes three storage silos, one pellet receiver, one dryer system feed hopper, and four dust collectors. |

Application and Related Documents

| Document Number | Date | Description |
|------------------------|-------------|---|
| 61044 | 12/04/2013 | STAR EA Demo |
| 68986 | 01/20/2015 | Confidential application for FEDOOP renewal |
| 68937 | 01/20/2015 | Public application for FEDOOP renewal |
| 172853 | 09/21/2020 | Stack test report |
| 187738 | 02/05/2021 | Amendment application and Stack test report |
| 216753 | 05/03/2021 | Altuglas Louisville ownership change |

Abbreviations and Acronyms

| | |
|-------------------|--|
| AP-42 | - AP-42, <i>Compilation of Air Pollutant Emission Factors</i> , published by U.S.EPA |
| APCD | - Louisville Metro Air Pollution Control District |
| BAC | - Benchmark Ambient Concentration |
| BACT | - Best Available Control Technology |
| Btu | - British thermal unit |
| CEMS | - Continuous Emission Monitoring System |
| CFR | - Code of Federal Regulations |
| CO | - Carbon monoxide |
| District | - Louisville Metro Air Pollution Control District |
| EA | - Environmental Acceptability |
| gal | - U.S. fluid gallons |
| GHG | - Greenhouse Gas |
| HAP | - Hazardous Air Pollutant |
| Hg | - Mercury |
| hr | - Hour |
| in. | - Inches |
| lbs | - Pounds |
| l | - Liter |
| LMAPCD | - Louisville Metro Air Pollution Control District |
| mmHg | - Millimeters of mercury column height |
| MM | - Million |
| (M)SDS | - (Material) Safety Data Sheet |
| NAICS | - North American Industry Classification System |
| NO _x | - Nitrogen oxides |
| PM | - Particulate Matter |
| PM ₁₀ | - Particulate Matter less than 10 microns |
| PM _{2.5} | - Particulate Matter less than 2.5 microns |
| ppm | - parts per million |
| PSD | - Prevention of Significant Deterioration |
| psia | - Pounds per square inch absolute |
| QA | - Quality Assurance |
| RACT | - Reasonably Available Control Technology |
| SIC | - Standard Industrial Classification |
| SIP | - State Implementation Plan |
| SO ₂ | - Sulfur dioxide |
| STAR | - Strategic Toxic Air Reduction |
| TAC | - Toxic Air Contaminant |
| UTM | - Universal Transverse Mercator |
| VOC | - Volatile Organic Compound |
| w.c. | - Water column |
| year | - Any period of twelve consecutive months, unless "calendar year" is specified |
| yr | - Year, or any 12 consecutive-month period, as determined by context |

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

- G1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.
- G2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.
- G3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.
- G4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.
- G5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.
- G6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.
- G7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.
- G8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit.

The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.

- G9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.
- G10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM₁₀, PM_{2.5}, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; or any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.
- G11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G12. Unless specified elsewhere in this permit, the owner or operator shall submit semi-annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All compliance reports shall include the following per Regulation 2.17, section 3.5.
- A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
 - The signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

| <u>Reporting Period</u> | <u>Report Due Date</u> |
|--------------------------------|-------------------------------|
| January 1 - June 30 | August 29 |
| July 1 - December 31 | March 1 of the following year |

- G13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

| Regulation | Title |
|-------------------|--|
| 1.01 | General Application of Regulations and Standards |

| Regulation | Title |
|-------------------|--|
| 1.02 | Definitions |
| 1.03 | Abbreviations and Acronyms |
| 1.04 | Performance Tests |
| 1.05 | Compliance With Emissions Standards and Maintenance Requirements |
| 1.06 | Source Self-Monitoring, Emission Inventory Development and Reporting |
| 1.07 | Excess Emissions During Startups, Shutdowns, and Upset Conditions |
| 1.08 | Administrative Procedures |
| 1.09 | Prohibition of Air Pollution |
| 1.10 | Circumvention |
| 1.11 | Control of Open Burning |
| 1.14 | Control of Fugitive Particulate Emissions |
| 1.18 | Rule Effectiveness |
| 1.19 | Administrative Hearings |
| 2.01 | General Application (Permit Requirements) |
| 2.02 | Air Pollution Regulation Requirements and Exemptions |
| 2.03 | Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements |
| 2.06 | Permit Requirements – Other Sources |
| 2.09 | Causes for Permit Modification, Revocation, or Suspension |
| 2.10 | Stack Height Considerations |
| 2.11 | Air Quality Model Usage |
| 3.01 | Ambient Air Quality Standards |
| 4.01 | General Provisions for Emergency Episodes |
| 4.02 | Episode Criteria |
| 4.03 | General Abatement Requirements |
| 4.04 | Particulate and Sulfur Dioxide Reduction Requirements |
| 4.05 | Hydrocarbon and Nitrogen Oxides Reduction Requirements |
| 4.06 | Carbon Monoxide Reduction Requirements |
| 4.07 | Episode Reporting Requirements |
| 6.01 | General Provisions (Existing Affected Facilities) |
| 6.02 | Emission Monitoring for Existing Sources |
| 7.01 | General Provisions (New Affected Facilities) |

- G14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

| Regulation | Title |
|-------------------|---|
| 1.12 | Control of Nuisances |
| 1.13 | Control of Objectionable Odors |
| 2.08 | Emission Fee, Permit Fees and Permit Renewal Procedures |
| 2.17 | Federally Enforceable District Origin Operating Permits |
| 5.00 | Definitions |
| 5.01 | General Provisions |
| 5.02 | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants |
| 5.14 | Hazardous Air Pollutants and Source Categories |
| 5.15 | Chemical Accident Prevention Provisions |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant |
| 5.23 | Categories of Toxic Air Contaminants |
| 7.02 | Adoption and Incorporation by Reference of Federal New Source Performance Standards |

- G15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.
- G16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.
- G17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

***Air Pollution Control District
701 W. Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137***

Plantwide Requirements

Facility Description

The source is a chemical manufacturing facility that produces acrylic pellets and polymer sheet.

Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|-----------------------------------|--|------------------------|
| Regulation | Title | Applicable Sections |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1, 2, 3.1, 4.1 and 4.2 |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---------------------|
| Regulation | Title | Applicable Sections |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

Plantwide Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. HAP

- i. The owner or operator shall not allow plantwide single HAP emissions to equal or exceed 10 tons per consecutive 12-month period.²
- ii. The owner or operator shall not allow plantwide total HAP emissions to equal or exceed 25 tons per consecutive 12-month period.²

b. HAP (LDAR)

These LDAR standards apply to pumps, valves, compressors, agitators, pressure relief devices, open-ended valves or lines, flanges, connectors, and instrumentation systems that operate in organic hazardous air pollutant (OHAP) service 300 hours or more during the calendar year. OHAP service means that a component either contains or contacts a fluid (liquid or gas) that is at least 5% by weight of total OHAPs. Components in vacuum service (as defined as operating at an internal pressure which is below ambient pressure) are exempt from these requirements. [Regulation 2.17, section 5.1]

- i. Each component shall be identified. Physical tagging is not required. Components can be identified on a plant site plan, in log entries, in an electronic database, or on process and instrumentation diagrams (P&IDs).
- ii. When a leak is detected, it shall be repaired as soon as practicable, but not later than 30 days after a leak is detected. The owner or operator may delay the repair of equipment for which leaks have been detected if repair within 30 days is technically infeasible without a process unit shutdown. The owner or operator shall repair such equipment by the end of the next process unit shutdown.
- iii. For rotating equipment, including pumps and agitator seals, the instrument reading that defines a leak is 500 ppm or more above background.
- iv. For all other components, the instrument reading that defines a leak is 25 ppm or more above background.

² The source is potentially major for single HAP (ethyl acrylate and methyl methacrylate), total HAP, PM₁₀ and VOC. The source accepted less than 10 tpy single HAP, 25 tpy total HAP, and less than 100 tpy for PM₁₀ and VOC.

c. PM/PM₁₀

The owner or operator shall not allow plantwide PM/PM₁₀ emissions to equal or exceed 100 tons per consecutive 12-month period. ²

d. TAC

- i. The owner or operator shall not allow emissions of any TAC from any process or process equipment to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*. [Regulations 5.00 and 5.21]
- ii. If the TAC does not have an established BAC or *de minimis* value, the owner or operator shall calculate and report these values. The form, located in Attachment C, may be used for determining BAC and *de minimis* values. [Regulation 5.20, Sections 3 and 4]

Table 1: Plantwide Ethyl Acrylate TAC Limit

| Emission Unit | Emission Limit |
|--|--------------------------|
| Plantwide Fugitives (LDAR 1-5 and NLDAR) | 0.84 pounds per 24 hours |

e. VOC

The owner or operator shall not allow plantwide VOC emissions to equal or exceed 100 tons per consecutive 12-month period. ²

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

- i. The owner or operator shall monthly calculate and record the plantwide consecutive 12-month single and total HAP emissions.
- ii. The owner or operator shall calculate the HAP emissions using the most up to date information from AP-42 Chapter 7 methodology, the EIIP SOCM chemical equations, the LDAR equations in this permit, approved stack tests, or other approved methods.

b. HAP (LDAR)

- i. Monitoring shall be conducted using Method 21 of 40 CFR 60, Appendix A.

- ii. For all applicable closed vent systems, the owner or operator shall monitor each component annually.
- iii. For all applicable components except closed vent systems, the owner or operator shall monitor each component quarterly.
- iv. For pressure relief devices, the owner or operator shall monitor each pressure relief device after a pressure release to atmosphere to ensure the valve has closed properly as soon as practicable, but no later than 5 calendar days after the pressure release.
- v. Any valve that is designated as unsafe-to-monitor is exempt from monitoring if the owner or operator determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of monitoring; and the owner or operator has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.
- vi. Any valve that is designated as difficult-to-monitor is exempt from monitoring if the owner or operator determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at any time in a safe manner; the process unit within which the valve is located is an existing source or the owner or operator designates less than 3% of the total number of valves in a new source as difficult-to-monitor; and the owner or operator follows a written plan that requires monitoring of the valve at least once per calendar year.
- vii. The owner or operator shall use the following to determine VOC and HAP emissions:³

³ Emission Inventory Improvement Program Vol. II, Chapter 4 Preferred and Alternative Methods for Estimating Fugitive Emissions from Equipment Leaks, Tables 4.4-3 and 4.4-4

Table 2: Correlation Equations, Default Zero Emission Rates, and Pegged Emission Rates for Estimating SOCM/Petroleum Industry TOC⁴ Emission Rates

| Equipment Type | Default Zero Emission Rate (kg/hr/source) | Pegged Emission Rates (kg/hr/source) | | Correlation Equation (kg/hr/source)* |
|--------------------------------|---|--------------------------------------|--------------|---|
| | | 10,000 ppmv | 100,000 ppmv | |
| Valves in gas/vapor service | 6.6×10^{-7} | 0.024 | 0.11 | $(1.87 \times 10^{-6}) \times (SV)^{0.873}$ |
| Valves in light liquid service | 4.9×10^{-7} | 0.036 | 0.15 | $(6.41 \times 10^{-6}) \times (SV)^{0.797}$ |
| Pumps in light liquid service | 7.5×10^{-6} | 0.140 | 0.62 | $(1.90 \times 10^{-5}) \times (SV)^{0.824}$ |
| Connectors | 6.1×10^{-7} | 0.044 | 0.22 | $(3.05 \times 10^{-6}) \times (SV)^{0.885}$ |
| Other | 4.0×10^{-6} | 0.073 | 0.11 | $(1.32 \times 10^{-5}) \times (SV)^{0.589}$ |

* SV is the screening value (ppmv) measured by the monitoring device.

- viii. The owner or operator shall use the following equation to speciate the HAPs and VOCs:

$$E_x = E_{TOC} \times \left(\frac{WP_x}{WP_{TOC}} \right)$$

Where:

- E_x = Mass emissions of organic chemical “x” (kg/hr)
 E_{TOC} = TOC mass emissions from the correlation equations, default zero rate, or pegged emission rate (kg/hr)
 WP_x = Concentration of organic chemical “x” in weight percent
 WP_{TOC} = TOC concentration in weight percent

- ix. When a leak is detected, a readily visible identification shall be attached to the leaking component.
- x. The owner or operator shall record the following information in the electronic database that shall be updated whenever a change occurs:
- (1) Component identification numbers and description;
 - (2) Process stream OHAP⁵ concentrations for each component;
 - (3) Monitoring schedule for each component;
 - (4) Results of the required monitoring, including measured background levels; and
 - (5) When a leak is detected, the component identification number, date the leak was detected, and the date of final repair.

⁴ Total Organic Compound

⁵ Organic Hazardous Air Pollutant

c. PM/PM₁₀

- i. The owner or operator shall keep a monthly record of the throughput of each particulate matter handling emission point.
- ii. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating.
- iii. The owner or operator shall monthly calculate and record the plantwide consecutive 12-month PM/PM₁₀ emissions for each month in the reporting period using the following equation or other District approved method:

$$E_{month} = \sum_{i=1}^n [EF \times T \times (1 - CE)]$$

Where:

E_{month} = PM/PM₁₀ emissions/month

n = Number of emission points

EF = Emission factor (February 28, 2003 submittal)

T = Throughput/month

CE = Control Efficiency

d. TAC

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to (M)SDS, analysis of emissions, and/or modeling results.
- ii. The owner or operator shall daily calculate the 24 hour average plantwide fugitive ethyl acrylate emissions.

e. VOC

- i. The owner or operator shall keep monthly records of the following:
 - (1) The amount of material in pounds produced;
 - (2) The product recipes which contain the amounts in pounds of each of the components;
 - (3) All equipment that is operating during each control device bypass period; and
 - (4) The throughput of VOC containing materials and the amount of time that each piece of equipment is operating during each bypass or malfunction of their associated VOC control devices.
- ii. The owner or operator shall monthly calculate and record the plantwide consecutive 12-month VOC emissions for each month in the reporting period.

- iii. The owner or operator shall calculate the VOC emissions using the most up to date information from AP-42 Chapter 7 methodology, the EIIP SOCM chemical equations, the LDAR equations in this permit, approved stack tests, or other approved methods.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

For all HAP emission points, the owner or operator shall report the consecutive 12-month plantwide single and total HAP emissions for each month in the reporting period.

b. HAP (LDAR)

The owner or operator shall report the following:

- i. The number of each type of component for which a leak was detected;
- ii. The number of each type of component monitored;
- iii. The total number of components of each type;
- iv. The facts that explain each delay of repair;
- v. Any changes in the number of components; and
- vi. A description of any corrective actions taken.

c. PM/PM₁₀

For all particulate matter handling emission points the owner or operator shall report the consecutive 12-month plantwide PM/PM₁₀ emissions for each month in the reporting period.

d. TAC

- i. Any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration.
- ii. The owner or operator shall report the following:
 - (1) Summary information on the quantity, duration, and cause of all exceedances of the limits; and

(2) Description of any corrective actions taken.

e. VOC

For all VOC emission points the owner or operator shall report the consecutive 12-month plantwide VOC emissions for each month in the reporting period.

Comments for Plantwide Requirements

- The source submitted Environmental Acceptability demonstrations with a modeling analysis, which demonstrated that the risk from the industrial and non-industrial modeled emissions does not exceed the environmental acceptability (EA) goals for ethyl acrylate and methyl methacrylate. The EA demonstrations and supporting documentations were received December 14, 2006, January 22, 2007, June 28, 2007, September 29, 2008, February 4, 2010, March 8, 2010, and December 4, 2013.

| Plantwide Sum | All new and existing P/PE | | All new P/PE | |
|--|---------------------------|-------|--------------|-------|
| Industrial Total R _C | N/A | < 75 | N/A | < 38 |
| Non-Ind. Total R _C | N/A | < 7.5 | N/A | < 3.8 |
| Industrial Total R _{NC} (max) | 2.93 | < 3.0 | | |
| Non-Ind. Total R _{NC} (max) | 0.74 | < 1.0 | | |

| Ethyl Acrylate | Industrial HQ | Non-Industrial HQ |
|----------------|---------------------------|---------------------------|
| Stack ID | (EAG _{NC} = 3.0) | (EAG _{NC} = 1.0) |
| Oven | 0.5479 | 0.0040 |
| RC-01 | 0.3172 | 0.0579 |
| TO-01 | 0.5095 | 0.1803 |
| TO-02 | 1.0497 | 0.3238 |
| [LDAR1] | 0.0148 | 0.0013 |
| [LDAR2] | 0.0152 | 0.0033 |
| [LDAR3] | 0.0152 | 0.0016 |
| [LDAR4] | 0.0157 | 0.0038 |
| [LDAR5] | 0.0132 | 0.0017 |
| ROTO | 1.7474 | 0.2061 |
| TO-03 | 0.5651 | 0.0893 |
| TO-04 | 0.8822 | 0.1367 |

2. As of the effective date of this permit, the de minimis levels for methyl methacrylate (MMA) and ethyl acrylate (EA) are:

| TAC | CAS # | Category | TAC Limits Determination | | |
|-----|----------|----------|--------------------------|---------|------------------|
| | | | (lb/avg. period) | (lb/hr) | Averaging Period |
| MMA | 80-62-6 | 4 | 336,000 | 378.00 | Annual |
| EA | 140-88-5 | 4 | 3.60 | 1.50 | 24 hour |

Emission Unit: Bulk Loading/Shipping System**Applicable Regulations**

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|--|--|----------------------------|
| Regulation | Title | Applicable Sections |
| 6.09 | Standards of Performance for Existing Process Operations | 1, 2, 3 and 5 |
| 7.08 | Standards of Performance for New Process Operations | 1, 2, 3 and 5 |

Equipment

| Emission Point ("E-KM-") | Description | Install Date | Applicable Regulations | Control ID ("C-KM-") | Release ID ("S-KM-") |
|--------------------------------------|---|--------------|------------------------|-------------------------|-------------------------|
| Clear Silos (U-KM-Silos1) | | | | | |
| 16-630 | Clear Storage Silo, 50,000 lb/hr | 1973 | 6.09 | 16-671 | 16-671 |
| 16-635 | Clear Storage Silo, 50,000 lb/hr | 1973 | | | |
| 16-640 | Clear Storage Silo, 50,000 lb/hr | 1985 | 7.08 | | |
| 16-645 | Clear Storage Silo, 50,000 lb/hr | 1985 | | | |
| 16-650 | Clear Storage Silo, 50,000 lb/hr | 1986 | 7.08 | | |
| 16-655 | Clear Storage Silo, 50,000 lb/hr | 1986 | 7.08 | | |
| 16-690 | Blend Tank, 36,000 lb/hr | 1974 | 6.09 | | |
| 16-644 | Silo Fines Collection, 30,000 lb/hr | 1973 | 6.09 | 16-644 | 16-644 |
| Clear Silo DCL System (U-KM-CLR_DCL) | | | | | |
| 12-614 | DCL Head Station 1, 30,000 lb/hr | 2001 | 7.08 | 12-613 | 12-613 |
| 12-615 | DCL Head Station 2, 30,000 lb/hr | 2001 | | | |
| 12-616 | DCL Head Station 3, 30,000 lb/hr | 2001 | | | |
| 12-617 | DCL Head Station 4, 30,000 lb/hr | 2001 | | | |
| 12-376 | Railcar Unloading Filter, 24,000 lb/hr | 2008 | | | |
| 12-377 | Railcar Unloading Process Cyclone, 24,000 lb/hr | 2008 | | | |

| Emission Point ("E-KM-") | Description | Install Date | Applicable Regulations | Control ID ("C-KM-") | Release ID ("S-KM-") |
|----------------------------------|--------------------------------|--------------|------------------------|-------------------------|-------------------------|
| Color Silos (U-KM-Silos2) | | | | | |
| 12-380 | Red Storage Silo, 50,000 lb/hr | 1989 | 7.08 | 12-390 | 12-390 |
| 12-385 | Red Storage Silo, 50,000 lb/hr | 1989 | | | |
| 12-338 ⁶ | Red Bulk Loading, 50,000 lb/hr | 1989 | 7.08 | 12-338 | 12-338 |

Control Devices

| Control ID | Description | PM/PM ₁₀ Control Efficiency |
|---|---------------------------------------|--|
| Clear Silos (U-KM-Silos1) | | |
| 16-671 | Silo Process Filter Collector (1973) | 98% |
| 16-644 | Silo Fines Bag Collector (1973) | 98% |
| Bulk Loading System (U-KM-CLR_DCL) | | |
| 12-613 | DCL Loading Filter Collector (2001) | 98% |
| Color Silos (U-KM-Silos2) | | |
| 12-390 | Red Silo Process Bag Collector (1989) | 98% |
| 12-338 | Red Silo Loading Cyclone (1989) | 85% |

⁶ Pka RedLoad

Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. Opacity

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 6.09, section 3.1 and Regulation 7.08, section 3.1.2]

b. PM/PM₁₀⁷

- i. For EP E-KM-16-630, 16-635, and 16-690 the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.58 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 6.09, section 3.4]
- ii. For EP E-KM-16-644, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 12.05 lb/hr based on actual operating hours in a calendar day. [Regulation 6.09, section 3.4]
[Permit 35262-12-C(R3), eff. 3/6/2014]
- iii. For EP E-KM-12-614, 12-615, 12-616, 12-617, 12-376, 12-377, 12-338, and 16-640, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 7.08, section 3.3]
- iv. For EP E-KM-12-380, and 12-385, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr based on actual operating hours in a calendar day combined for both pieces of equipment. [Regulation 7.08, section 3.3]
- v. For EP E-KM-16-645, 16-650, and 16-655, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 21.55 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 7.08, section 3.3]
[Permit 35262-12-C(R3), eff. 3/6/2014]
- vi. The owner or operator shall operate and maintain control devices C-KM-16-671, C-KM-16-644, C-KM-12-613, C-KM-12-390 and C-KM-12-338 at all times when an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions.

⁷ The Shipping (Bulk Loading) System emission points cannot exceed the PM emission limits controlled.

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

There are no monitoring or record keeping requirements for this equipment.

b. PM/PM₁₀

- i. The owner or operator shall monthly perform and record the results of a visual inspection of the structural and mechanical integrity of each particulate matter handling control device for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed.
- ii. For the particulate matter control devices, the pressure drops shall be as indicated in the Bulk Loading/Shipping System Control Device Pressure Drop Ranges table unless a new limit is approved in writing by the District:

Table 3: Bulk Loading/Shipping System Control Device Pressure Drop Ranges

| Control ID ⁸ | New Bag Lower Limit | Seasoned Bag Lower Limit | Upper Limit |
|-------------------------|------------------------------|-----------------------------|-------------|
| | [Inches Water Column (W.C.)] | | |
| C-KM-16-671 | 0.1 | 0.5 | 4 |
| C-KM-16-644 | 0.1 | 0.5 | 13 |
| C-KM-12-613 | 0.1 | 0.5 | 4 |
| C-KM-12-390 | 0.5 | 1.0 | 15 |
| C-KM-12-338 | 0.4 | 0.7 | 4 |

- (1) Upon replacement of the filter media, the pressure drop shall not fall below the new bag lower limit; and
- (2) After the pressure drop reaches the seasoned bag lower limit for seven consecutive operating days, the pressure drop shall not fall below the seasoned bag lower limit.

⁸ Due to similar design and operation, the pressure drop range for Baghouse 16-644 was based on the stack test for Baghouse 12-087, conducted July 8 and 9, 2009.

The pressure drop range for Baghouse 12-390 was provided by The Young Industries Inc. (December 23, 2008).

- iii. For the control devices listed in the Bulk Loading/Shipping System Control Device Pressure Drop Ranges Table, the owner or operator shall monitor and record the pressure drop across each control device each operating day to ensure the pressure drop does not exceed the limits. For any excursion from the stipulated pressure drop range the owner or operator shall record the number, duration and cause of each excursion, and a description of the corrective actions taken.
- iv. For any period of time when the process was operating and any of the associated particulate matter control devices were bypassed or not operating correctly, the owner or operator shall maintain the following records:
 - (1) The start and stop time of the period;
 - (2) The throughput of the associated process equipment during the period; and
 - (3) The average pound per hour PM emissions.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. Opacity

There are no reporting requirements for this equipment.

b. PM/PM₁₀

- i. For each particulate matter control device, the owner or operator shall report the following:
 - (1) Identification of the operating parameter being monitored;
 - (2) Summary information on the quantity, duration, and cause of all excursions; and
 - (3) A description of any corrective actions taken.
- ii. For periods of time when an emission point is venting emissions to a particulate matter control device that was not operating within the correct parameters, was bypassed, or otherwise failed to control emissions as designed the following shall be reported:
 - (1) The start and stop time of the period;
 - (2) The throughput of the associated process equipment and the control device during the period;

- (3) The average pound per hour emissions during the period for each emission point; and
- (4) A description of any corrective actions taken.

Emission Unit KM Extruder System

Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|--|---|---------------------------------------|
| Regulation | Title | Applicable Sections |
| 1.02 | Definitions [Insignificant Activities] | Appendix A |
| 6.09 | Standards of Performance for Existing Process Operations | 1, 2, 3 and 5 |
| 6.24 | Standards of Performance for Existing Sources Using Organic Materials | 1, 2, 3.2, 3.3, 4.1, 4.2, 5.1 and 5.2 |
| 7.08 | Standards of Performance for New Process Operations | 1, 2, 3 and 5 |
| 7.12 | Standards of Performance for New Storage Vessels for Volatile Organic Compounds | 1, 2 and 3.3 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1, 2, 3.1, 4.1 and 4.2 |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|----------------------------|
| Regulation | Title | Applicable Sections |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

Equipment

| Emission Point ("E-KM-") | Description | Install Date | Applicable Regulations | Control ID ("C-KM-") | Release ID ("S-KM-") |
|--|---------------------------------------|--------------|------------------------|-------------------------|-------------------------|
| KM Die and Die Ventilation Systems (U-KM-Die) | | | | | |
| 12-162 | KM1 Die Head, 12,000 lb/hr | 1967 | STAR, 6.09, 6.24 | 16-547 | 16-547 |
| 16-162 | KM2 Die Head, 12,000 lb/hr | 1974 | | | |
| 12-701 ⁹ | Chemical Sewer Tank, 1,500 gal | 2000 | 7.12 | N/A | N/A |
| KM Extruder System (U-KM-Extruders) | | | | | |
| 12-367 | KM1 Hub Seal, 12,000 lb/hr | 1967 | STAR, 6.24 | 12-199 (Bypass) | 12-199 (TO-02) |
| 12-105 | KM1 Recycle Tank, 4,800 gal | 1967 | | | |
| 12-110 | TVM Testing Tank, 4,800 gal | 1967 | | | |
| 12-115 | EA Tank, 4,800 gal | 1967 | | | |
| 12-140 | KM1 Reactor, 950 gal | 1967 | | | |
| 12-150 | KM1 Dump Tank, 2,000 gal | 1967 | | | |
| 12-160 | KM1 Extruder, 20,000 lb/hr | 1967 | | | |
| 12-190 | Rundown Tank, 700 gal | 1967 | | | |
| 16-367 | KM2 Hub Seal, 12,000 lb/hr | 1974 | | | |
| 16-105 | KM2 Recycle Tank, 4,800 gal | 1974 | | | |
| 16-110 | MMA Tank, 4,800 gal | 1974 | | | |
| 16-115 | TVM Holding Tank, 4,800 gal | 1974 | | | |
| 16-140 | KM2 Reactor, 750 gal | 1974 | | | |
| 16-150 | KM2 Dump Tank, 2,500 gal | 1974 | | | |
| 16-160 | KM2 Extruder, 20,000 lb/hr | 1974 | | | |
| 12-458 | nDDM Tank, 1,080 gal | 2000 | STAR, 7.25 BACT | 12-199 (Bypass) | 12-199 (TO-02) |
| 12-118 | nDDM Weigh Tank, 20 gal [IA] | 1997 | 1.02, 7.25 BACT | 12-199 (Bypass) | 12-199 (TO-02) |
| 12-465 | KM Reactor Feed Tank #1, 200 gal [IA] | 2001 | | | |

⁹ Formerly Watertank, assigned to Die system because Rotoclone is largest discharger to tank

| Emission Point ("E-KM-") | Description | Install Date | Applicable Regulations | Control ID ("C-KM-") | Release ID ("S-KM-") |
|---|--|--------------|------------------------|-------------------------|-------------------------|
| 16-465 | KM Reactor Feed Tank #2, 200 gal[IA] | 2001 | | | |
| 12-455 | DtDDS Tank, 100 gal [IA] | 2000 | | | |
| 12-461 | DTAC Tank, 110 gal [IA] | 2000 | 1.02, 7.25 | NA | NA |
| Beringer Pyrolysis Oven | | | | | |
| Oven | Pyrolysis Oven, 1,000 lb/hr | 1992 | STAR, 7.08, 7.25 | Oven | Oven |
| KM-1 Additive System (U-KM-KM1Add) | | | | | |
| 12-127 | KM1 Methyl Salicylate Tank, 150 gal [IA] | 2001 | 1.02, 7.25 BACT | 12-199 (Bypass) | 12-199 (TO-02) |
| 12-155 | KM1 "Color" Additive Tank, 150 gal [IA] | 1986 | | | |
| 12-156 | KM1 "Color" Additive Tank, 150 gal [IA] | 1986 | | | |
| 12-165 | KM1 "Clear" Additive Tank, 150 gal [IA] | 1986 | | | |
| 12-166 | KM1 "Clear" Additive Tank, 150 gal [IA] | 1986 | | | |
| KM-2 Additive System (U-KM-KM2Add) | | | | | |
| 16-127 | KM2 Methyl Salicylate Tank, 150 gal [IA] | 1974 | 1.02, 6.24 | 12-199 (Bypass) | 12-199 (TO-02) |
| 16-155 | KM2 "Color" Additive Tank, 150 gal [IA] | 1974 | | | |
| 16-156 | KM2 "Color" Additive Tank, 150 gal [IA] | 1974 | | | |
| 16-165 | KM2 "Clear" Additive Tank, 150 gal [IA] | 1974 | | | |
| 16-166 | KM2 "Clear" Additive Tank, 150 gal [IA] | 1974 | | | |
| KM1 Rework Feed System (U-KM-KM1Rework) | | | | | |
| 12-256 | KM1 Rework Process Cyclone, 3,000 lb/hr | 1995 | 7.08 | 12-257 | 12-257 |
| KM2 Rework Feed System (U-KM-KM2Rework) | | | | | |
| 16-331 | KM2 Rework Process Cyclone, 3,000 lb/hr | 1974 | 6.09 | 16-328 | 16-328 |
| 16-348 | KM2 DR Process Cyclone, 3,000 lb/hr | 1995 | 7.08 | | |

Control Devices

| Control ID ("C-KM-") | Description | Control Efficiency |
|---|---|----------------------------------|
| KM Die and Die Ventilation Systems (U-KM-Die) | | |
| 16-547 | KM Wet Rotoclone (1999) (Bypass) | 0% ¹⁰ for VOC |
| | | 0% for PM/PM ₁₀ |
| KM Extruder System (U-KM-Extruders) | | |
| 12-199 | Thermal Oxidizer (TO), Met-Pro model TX-T-3G (2003) (Bypass) | 99.993% ¹¹ for VOC |
| KM1 Rework Feed System (U-KM-KM1Rework) | | |
| 12-257 | KM1 Rework Bag Collector, 400 cfm (1995) | 98% for PM/PM ₁₀ |
| KM2 Rework Feed System (U-KM-KM2Rework) | | |
| 16-328 | KM2 Rework Bag Collector, 500 cfm (2011) | 98% for PM/PM ₁₀ |

¹⁰ A stack test performed on the KM Wet Rotoclone (C-KM-16-547) on December 3, 2020, demonstrated a 1% control efficiency for PM and 20.5% for VOC. PM emissions at the inlet of the Rotoclone were 0.328 pound per hour. VOC emissions at the inlet of the Rotoclone were 0.84 pound per hour. The source will assume 0% efficiency for emissions calculations.

¹¹ A Thermal Oxidizer stack test performed on July 8, 2009, demonstrated 99.98% reduction of VOC emissions at 1,405°F while operating the KM-2 line. On October 1 and 2, 2010, another stack test was performed for both lines demonstrating 99.993% reduction of VOC emissions at 1,410°F.

Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. Opacity

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 6.09, section 3.1 and Regulation 7.08, section 3.1.1]

b. PM/PM₁₀

- i. For EP E-KM-12-162 and 16-162, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 21.67 lb/hr combined based on actual operating hours in a calendar day for both pieces of equipment.¹² [Regulation 6.09, section 3.4]
- ii. For EP E-KM-16-331, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 5.38 lb/hr based on actual operating hours in a calendar day. [Regulation 6.09, section 3.4]
[Permit 29794-10-C, eff. 12/1/2010]
- iii. For EP E-KM-16-348, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 4.62 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.3]
[Permit 29794-10-C, eff. 12/1/2010]
- iv. For EP E-KM-12-256, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.3]
- v. The owner or operator shall operate and maintain control devices C-KM-12-257 and C-KM-16-328 at all times when an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions.

c. TAC

- i. The owner or operator shall not allow emissions of methyl methacrylate to exceed the following:¹³ [Regulation 5.21, section 4.3]
[Permit 35262-12-C(R3), eff. 3/6/2014]

¹² A stack test performed on the KM Wet Rotoclone 16-547 on December 3, 2020 demonstrated PM emissions at the inlet were 0.328 pound per hour and at the outlet were 0.324 pound per hour.

¹³ For methyl methacrylate (MMA), the source demonstrated that the potential emissions are *de minimis* controlled with VOC emission limits for the Thermal Oxidizer (C-KM-12-199).

- (1) Combined post-control emissions from all emission points that vent to the Thermal Oxidizer (TO), C-KM-12-199, to less than or equal to 1.8345 tons (3,669 pounds) for each consecutive 12-month period,
 - (2) Uncontrolled emissions from all emission points that vent to the TO Bypass Stack (S-KM-TO-02) to less than or equal to:
 - (a) 0.72 tons (1,440 pounds) for each consecutive 12-month period, and
 - (b) 360 pounds for any 24 hour period.
- ii. The owner or operator shall not allow emissions of ethyl acrylate to exceed those listed in the following table:
[Permit 35262-12-C(R3), eff. 3/6/2014]

Table 4: Ethyl Acrylate TAC Limits

| Stack | Emission Limit |
|---|-------------------------|
| KM Wet Rotoclone Bypass Stack (S-KM-ROTO-1) | 67.2 pounds / 24 hours |
| Thermal Oxidizer (TO) Stack (S-KM-12-199) | 100.8 pounds / 24 hours |
| Thermal Oxidizer (TO) Bypass Stack (S-KM-TO-02) | 144 pounds / 24 hours |
| Beringer Oven Stack (S-KM-Oven) | 11.04 pounds / 24 hours |

d. VOC

- i. Storage Tank EP E-KM-12-701 shall be equipped with a permanent submerged fill pipe if the true vapor pressure of the VOCs, as stored, is equal to or greater than 1.5 psia. ¹⁴ [Regulation 7.12, section 3.3]
- ii. For EP E-KM-12-162 and 16-162, the owner or operator shall limit VOC emissions from each emission point to less than or equal to 3,000 lbs/day and 450 lb/hr. ^{15 16} [Regulation 6.24, section 3.2 and 3.3]
- iii. The owner or operator shall limit the VOC emissions that are vented to the Wet Rotoclone Bypass, S-KM-ROTO-1, to less than or equal to 754 pounds per consecutive 12-month period. ¹⁷ [Regulation 2.17, section 5.1]

¹⁴ The vapor pressure of the contents of the storage tank is 0.25 psia.

¹⁵ The VOC emitted are Class III solvents.

¹⁶ A stack test performed on the KM Wet Rotoclone 16-547 on December 3, 2020, demonstrated VOC emissions at the inlet of the Rotoclone were 0.84 pound per hour and at the outlet were 0.66 pound per hour.

¹⁷ The facility requested to include any additional equipment vented to the thermal oxidizer with the original equipment included in the BACT analysis under the same emission limits with no increase in allowable emissions.

- iv. For EP E-KM-12-105, 12-140, 12-150, 12-160, 12-190, 12-367, 16-105, 16-140, 16-150, 16-160, 16-367, 12-465, 16-127, 16-155, 16-156, 16-165 and 16-166, the owner or operator shall reduce VOC emissions by at least 85% by weight.¹⁸ [Regulation 6.24, section 3.2 and 3.3]
- v. The owner or operator shall operate and maintain the Thermal Oxidizer (TO), C-KM-12-199, at all times the following emission points are in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions: E-KM-12-110, 12-115, 16-110, 16-115 (while in monomer service), 12-105, 12-140, 12-150, 12-160, 12-190, 12-367, 16-105, 16-140, 16-150, 16-160, 16-367, 12-465, 16-127, 16-155, 16-156, 16-165, 16-166, 12-458, 12-118, 12-127, 12-155, 12-156, 12-165, 12-166, 12-455, and 16-465, except as provided for during bypass conditions in Specific Condition S1.d.viii.¹⁹ [Regulation 7.25, section 3.1 and Regulation 6.24, sections 3.2 and 3.3] [Permit 207-03-C, eff. 5/31/2004]
- vi. The owner or operator shall limit the combined post-control VOC emissions from all emission points that vent to the TO, C-KM-12-199, to less than or equal to 1.8345 tons per consecutive 12-month period.
[Permit 207-03-C, eff. 5/31/2004, Permit 61-07-C, and Permit 62-07-C]
- vii. The owner or operator shall limit the uncontrolled VOC emissions from all emission points that vent to the Thermal Oxidizer (TO) Bypass Stack, S-KM-TO-02, to less than or equal to 0.72 tons (1,440 pounds) per consecutive 12-month period. [Permit 207-03-C, eff. 5/31/2004]
- viii. The owner or operator shall limit the non-BACT VOC emissions to less than or equal to 5 tons per consecutive month period for all emission points plantwide that are subject to Regulation 7.25 (EP E-KM-12-461, Oven, E-KS-10-120, 11-120, 10-122, 11-122) but that are not subject to a VOC BACT limit. [Regulation 7.25, section 3.1]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

There are no monitoring or record keeping requirements for this equipment.

b. PM/PM₁₀

¹⁸ The Thermal Oxidizer meets the 85% control requirement in Regulation 6.24.

¹⁹ The District has determined the Thermal Oxidizer to be VOC BACT for the purposes of Regulation 7.25.

- i. The owner or operator shall monthly perform and record the results of a visual inspection of the structural and mechanical integrity of each particulate matter handling control device for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed.
- ii. For the particulate matter control devices, the pressure drops shall be as indicated in the KM Extruder Control Devices Pressure Drop Ranges Table unless a new limit is approved in writing by the District:

Table 5: KM Extruder Control Devices Pressure Drop Ranges

| Control ID ²⁰ | New Bag Lower Limit | Seasoned Bag Lower Limit | Upper Limit |
|--------------------------|------------------------------|-----------------------------|-------------|
| | [Inches Water Column (W.C.)] | | |
| C-KM-12-257 | 0.1 | 0.5 | 13 |
| C-KM-16-328 | 0.1 | 1.0 | 5 |

- (1) Upon replacement of the filter media, the pressure drop shall not fall below the new bag lower limit; and
 - (2) After the pressure drop reaches the seasoned bag lower limit for seven consecutive operating days, the pressure drop shall not fall below the seasoned bag lower limit.
- iii. For the particulate matter control devices listed in the KM Extruder Control Devices Pressure Drop Ranges Table, the owner or operator shall monitor and record the pressure drop across each control device each operating day to ensure the pressure drop does not exceed the limits shown in the table. For any excursion from the stipulated pressure drop range the owner or operator shall record the number, duration and cause of each excursion, and a description of the corrective actions taken.
 - iv. For any period of time when the process was operating and any of the associated particulate matter control devices were bypassed or not operating correctly, the owner or operator shall maintain the following records:
 - (1) The start and stop time of the period;
 - (2) The throughput of the associated process equipment during the period; and
 - (3) The average pound per hour PM emissions.

c. TAC

²⁰ Due to similar design and operation, the pressure drop ranges for Baghouse C-KM-12-257 is based on the stack test for Baghouse C-KM-12-087. The pressure drop range for Baghouse C-KM-12-087 was determined from a stack test conducted July 8 and 9, 2009. Baghouse C-KM-16-328 pressure drop ranges are based on a letter of certification by the equipment manufacturer Premier Pneumatics, Incorporated dated February 22, 2011.

- i. The owner or operator shall monthly calculate and record the previous consecutive 12-month methyl methacrylate emissions from the:
 - (1) Thermal Oxidizer; and
 - (2) Thermal Oxidizer Bypass.
- ii. The owner or operator shall daily calculate the 24 hour average emissions of methyl methacrylate from S-KM-TO-02.
- iii. The owner or operator shall daily calculate the 24 hour average emissions of ethyl acrylate from S-KM-ROTO-1, S-KM-12-199, S-KM-TO-02, and S-KM-Oven.

d. VOC

- i. For the Thermal Oxidizer (TO), C-KM-12-199, the owner or operator shall monitor and record the combustion temperature, when any emission point is being vented to it, every sixty (60) seconds and shall daily calculate and record 15 minute block averages for the previous day. When the data acquisition system is down, record the temperature manually once per hour. The records shall include the date and time of the observations.
- ii. The minimum combustion temperature of the Thermal Oxidizer (TO), C-KM-12-199, shall be 1,405°F. When the 15 minute average temperature or manually recorded hourly temperature is below the minimum combustion temperature, then emissions shall be considered as uncontrolled for that period. [Regulation 2.03, section 6.1]
- iii. For EP E-KM-12-162 and 16-162, the owner or operator shall calculate and record the lb/hr and lb/day VOC emissions from each emission point during any time that the Wet Rotoclone is bypassed.
- iv. The owner or operator shall monthly calculate and record the previous consecutive 12-month VOC emissions from:
 - (1) S-KM-ROTO-1;
 - (2) S-KM-12-199;
 - (3) S-KM-ROTO-2; and
 - (4) EP E-KM-12-461, Oven, E-KS-10-120, 11-120, 10-122, 11-122.
- v. For any period of time when EP E-KM-12-140, 12-160, 16-140, 16-160, 12-105, 12-118, 12-465, 12-150, 12-190, 16-105, 16-127, 16-150, 16-155, 16-156, 16-165 and 16-166 were operating, and the Thermal Oxidizer was bypassed or not operating correctly, the owner or operator shall maintain the following records:
 - (1) The start and stop time of the period;

- (2) The throughput of the associated process equipment during the period; and
 - (3) The lb/hr and lb/day VOC emissions from each emission point during the period.
- vi. The owner or operator of storage vessel E-KM-12-701 shall maintain monthly records of the material stored in the storage vessel and if the contents of the storage vessel is changed, a record shall be made of the new contents.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. Opacity

There are no reporting requirements for this equipment.

b. PM/PM₁₀

- i. For each particulate matter control device, the owner or operator shall report the following:
 - (1) Identification of the operating parameter being monitored;
 - (2) Summary information on the quantity, duration, and cause of all excursions; and
 - (3) A description of any corrective actions taken.
- ii. For periods of time when an emission point is venting emissions to a particulate matter control device that was not operating within the correct parameters, was bypassed, or otherwise failed to control emissions as designed the following shall be reported:
 - (1) The start and stop time of the period;
 - (2) The throughput of the associated process equipment and the control device during the period;
 - (3) The average pound per hour emissions during the period for each emission point; and
 - (4) A description of any corrective actions taken.

c. TAC

The owner or operator shall report the following:

- i. The consecutive 12-month methyl methacrylate emissions from the:
 - (1) Thermal Oxidizer (TO), C-KM-12-199;
 - (2) Thermal Oxidizer (TO) Bypass (S-KM-TO-02).
- ii. The daily average methyl methacrylate emissions for each month in the reporting period from the Thermal Oxidizer (TO) Bypass (S-KM-TO-02).
- iii. The daily average ethyl acrylate emissions for each month in the reporting period from the:
 - (1) KM Wet Rotoclone Bypass Stack (S-KM-ROTO-1);
 - (2) Thermal Oxidizer (TO) Stack (S-KM-12-199);
 - (3) Thermal Oxidizer (TO) Bypass (S-KM-TO-02); and
 - (4) Beringer Oven (S-KM-Oven).

d. VOC

- i. For emission points subject to Regulation 6.24, the owner or operator shall report the following:
 - (1) The average lb/hr and lb/day VOC emissions during any bypass or malfunction of the associated control devices C-KM-12-199 and C-KM-16-547; and
 - (2) A description of any corrective actions taken.
- ii. The owner or operator shall report for each month in the reporting period the consecutive 12-month VOC emissions from:
 - (1) The Wet Rotoclone Bypass, S-KM-ROTO-1;
 - (2) The Thermal Oxidizer (TO), C-KM-12-199;
 - (3) The Thermal Oxidizer (TO) bypass stack, S-KM-TO-02; and
 - (4) EP E-KM-12-461, Oven, E-KS-10-120, 11-120, 10-122, 11-122.

Emission Unit KM Packout System

Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|--|--|----------------------------|
| Regulation | Title | Applicable Sections |
| 6.09 | Standards of Performance for Existing Process Operations | 1, 2, 3 and 5 |
| 7.08 | Standards of Performance for New Process Operations | 1, 2, 3 and 5 |

Equipment

| Emission Point ("E-KM-") | Description | Install Date | Applicable Regulations | Control ID ("C-KM-") | Release ID ("S-KM-") |
|---|---|--------------|------------------------|-------------------------|-------------------------|
| KM-1 Product Screening (U-KM-KM1Screen) | | | | | |
| 12-267 | KM1 Witte Screener, 12,500 lb/hr | 1989 | 7.08 | 12-270 | 12-270 |
| KM-1 Product Transfer System (U-KM-KM1Transf) | | | | | |
| 12-363 | KM1 Pellet Transfer Process Cyclone, 12,500 lb/hr | 1995 | 7.08 | 12-362 | 12-362 |
| KM-2 Product Screening (U-KM-KM2Screen) | | | | | |
| 16-272 | KM2 Witte Screener, 12,500 lb/hr | 1970 | 6.09 | 16-275 | 16-275 |
| KM-2 Product Transfer System (U-KM-KM2Transf) | | | | | |
| 16-330 | KM2 Pellet Transfer Process Cyclone, 12,500 lb/hr | 1995 | 7.08 | 16-329 | 16-329 |
| Miscellaneous (U-KM-Misc) | | | | | |
| 12-087 | Packout House Vacuum, 1,000 lb/hr | 1974 | 6.09 | 12-087 | 12-087 |
| 12-369 | Pelletron, 12,500 lb/hr | 1999 | 7.08 | 12-371 | 12-371 |
| Packout System Emission Point (U-KM-Pack) | | | | | |
| 12-343 | KM1 Fill Station, 15,000 lb/hr | 1995 | 7.08 | 16-286 | 16-286 |
| 16-303 | KM2 Fill Station, 15,000 lb/hr | 1995 | | | |
| Common Screen System (U-KM-KM3-Screen) | | | | | |
| 16-337 | 3 rd Witte Screener, 20,000 lb/hr | 1994 | 7.08 | 16-338 | 16-338 |

Control Devices

| Control ID ("C-KM-") | Description | PM Control Efficiency |
|--|--|----------------------------------|
| KM-1 Product Screening (U-KM-KM1Screen) | | |
| 12-270 | KM1 Dual Cyclone (8,000 cfm, 1989) | 85% |
| KM-1 Product Transfer System (U-KM-KM1Transf) | | |
| 12-362 | KM1 Pellet Transfer Bag Collector (450cfm, 1995) | 98% |
| KM-2 Product Screening (U-KM-KM2Screen) | | |
| 16-275 | KM2 Dual Cyclone (8,000 cfm, 1989) | 85% |
| KM-2 Product Transfer System (U-KM-KM2Transf) | | |
| 16-329 | KM2 Pellet Transfer Bag Collector (450cfm, 1995) | 98% |
| Miscellaneous (U-KM-Misc) | | |
| 12-087 | KM House Vacuum Bag Collector, 15,000 lb/hr (1974) | 98% |
| 12-371 | KM Pelletron Filter Collector (3,500 cfm, 1999) | 98% |
| Packout System Emission Point (U-KM-Pack) | | |
| 16-286 | KM Packaging Station Bag Collector (500 cfm, 1995) | 98% |
| Common Screen System (U-KM-Screen) | | |
| 16-338 | 3 rd Witte Dual Cyclone (7,200 cfm, 1994) | 85% |

Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. Opacity

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 6.09, section 3.1 and Regulation 7.08, section 3.1.2]

b. PM/PM₁₀²¹

- i. For EP E-KM-12-087 and 16-272, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.58 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 6.09, section 3.4]
- ii. For EP E-KM-12-267, 12-363, 16-330, 12-369, 12-343, 16-303, and 16-337 the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 7.08, section 3.3]
- iii. The owner or operator shall operate and maintain control devices C-KM-12-362, C-KM-16-329, C-KM-12-087, C-KM-16-286 and C-KM-12-371 at all times when an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions.
- iv. The owner or operator shall operate and maintain control devices C-KM-12-270, C-KM-16-275, and C-KM-16-338 at all times when an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions.

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

There are no monitoring or record keeping requirements for this equipment.

²¹ The Packout System emission points cannot exceed the PM emission limits controlled.

b. PM/PM₁₀

- i. The owner or operator shall monthly perform and record the results of a visual inspection of the structural and mechanical integrity of each particulate matter handling control device for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed.
- ii. For the particulate matter control devices, the pressure drops shall be as indicated in the KM Packout Control Devices Pressure Drop Ranges Table unless a new limit is approved in writing by the District:

Table 6: KM Packout Control Devices Pressure Drop Ranges

| Control ID ²² | New Bag Lower Limit | Seasoned Bag Lower Limit | Upper Limit |
|--------------------------|------------------------------|-----------------------------|-------------|
| | [Inches Water Column (W.C.)] | | |
| C-KM-12-362 | 0.5 | 0.8 | 10.0 |
| C-KM-16-329 | 0.5 | 0.8 | 10.0 |
| C-KM-12-087 | 0.1 | 0.5 | 13.0 |
| C-KM-16-286 | 0.15 | 0.5 | 4.0 |
| C-KM-12-371 | 0.5 | 0.9 | 15.0 |

- (1) Upon replacement of the filter media, the pressure drop shall not fall below the new bag lower limit; and
 - (2) After the pressure drop reaches the seasoned bag lower limit for seven consecutive operating days, the pressure drop shall not fall below the seasoned bag lower limit.
- iii. For the particulate matter control devices listed in the KM Packout Control Devices Pressure Drop Ranges Table, the owner or operator shall monitor and record the pressure drop across each control device each operating day to ensure the pressure drop does not exceed the limits shown in the table. For any excursion from the stipulated pressure drop range the owner or operator shall record the number, duration and cause of each excursion, and a description of the corrective actions taken.
 - iv. For any period of time when the process was operating and any of the associated particulate matter control devices were bypassed or not operating correctly, the owner or operator shall maintain the following records:
 - (1) The start and stop time of the period;

²² The pressure drop ranges for Baghouse C-KM-12-362 and C-KM-16-329 were based on SEMCO's Operation and Maintenance Manual and engineering judgment. The pressure drop range for Baghouse C-KM-12-087 was determined from a stack test conducted July 8 and 9, 2009. The pressure drop range for Baghouse C-KM-12-371 was based on Flex-Kleen's Operating, Equipment, and Construction Data (December 10, 1998) and engineering judgment.

- (2) The throughput of the associated process equipment during the period; and
- (3) The average pound per hour PM emissions.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. Opacity

There are no reporting requirements for this equipment.

b. PM/PM₁₀

- i. For each particulate matter control device, the owner or operator shall report the following:
 - (1) Identification of the operating parameter being monitored;
 - (2) Summary information on the quantity, duration, and cause of all excursions; and
 - (3) A description of any corrective actions taken.
- ii. For periods of time when an emission point is venting emissions to a particulate matter control device that was not operating within the correct parameters, was bypassed, or otherwise failed to control emissions as designed the following shall be reported:
 - (1) The start and stop time of the period;
 - (2) The throughput of the associated process equipment and the control device during the period;
 - (3) The average pound per hour emissions during the period for each emission point; and
 - (4) A description of any corrective actions taken.

Emission Unit KS Polymer Sheet System**Applicable Regulations**

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|--|--|----------------------------|
| Regulation | Title | Applicable Sections |
| 1.02 | Definitions [Insignificant Activities] | 1.38.1.2 |
| 6.09 | Standards of Performance for Existing Process Operations | 1, 2, 3 and 5 |
| 7.08 | Standards of Performance for New Process Operations | 1, 2, 3 and 5 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1, 2, 3.1, 4.1 and 4.2 |

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|----------------------------|
| Regulation | Title | Applicable Sections |
| 5.00 | Definitions | 1, 2 |
| 5.01 | General Provisions | 1 through 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 | | |

Equipment

| Emission Point ("E-KS-") | Description | Install Date | Applicable Regulations | Control ID ("C-KS-") | Release ID ("S-KS-") |
|--|--|--------------|------------------------|-------------------------|-------------------------|
| Pellet Receiving, Storage, Handling and Grinding | | | | | |
| 10-108 | Storage Silo, 36,000 lb/hr | 1974 | 6.09 | 10-116 | 10-116 |
| 10-109 | Storage Silo, 36,000 lb/hr | 1974 | 6.09 | 10-116 | 10-116 |
| 10-106 ²³ | Silo 1, 15,000 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 10-107 ²⁴ | Silo 2, 15,000 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 10-101 | Bag Tote Dumper , 30,000 lb/hr | 1991 | 7.08 | 10-520 | 10-520 |
| 10-546 | Pellet Receiver, 10,000 lb/hr | 1991 | 7.08 | 10-520 | 10-520 |
| 10-545 | Pellet Hopper, 10,000 lb/hr | 1991 | None | No Emissions | NA |
| 10-555 | Pellet Receiver, 36,000 lb/hr | 2013 | 7.08 | 10-520 | 10-520 |
| 10-553 | Pellet Hopper, 36,000 lb/hr | 2013 | None | No Emissions | NA |
| 10-041 | Grinder 1, 5,000 lb/hr | 2013 | 7.08 | 10-043 | 10-043 |
| 10-045 | Grinder 2, 5,000 lb/hr | 2013 | 7.08 | 10-043 | 10-043 |
| 10-525 | Bagging House Vacuum, 900 lb/hr [IA] | 2013 | 1.02, 7.08 | 10-525 | 10-525 |
| Pellet Drying | | | | | |
| 10-001 through 10-006 | Dryers 13-18 Silos Process Collectors, 4,500 lb/hr combined [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-007 through 11-014 | Dryers 19-26 Silos Process Collectors, 4,500 lb/hr combined [IA] | 2013 | 1.02, 7.08 | None | NA |
| Line 10 Pellet Feed Transfer Hoppers | | | | | |
| 10-060 | Tote Unload Unit 4 Process Collectors 10-A, 750 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 10-061 | Tote Unload Unit 4 Process Collectors 10-B, 750 lb/hr [IA] | 2013 | | None | NA |
| 10-066 | Waste Tote Process Collector 10-C, 750 lb/hr [IA] | 2013 | | None | NA |
| 10-062 | Process Collector 10-RG-1, 750 lb/hr [IA] | 2013 | | None | NA |
| 10-063 | Process Collector 10-RG-2, 750 lb/hr [IA] | 2013 | | None | NA |
| 10-064 | Process Collector 10-VN-1, 750 lb/hr [IA] | 2013 | | None | NA |
| Sheet Line 10 | | | | | |
| 10-120-004 | Extruder 10 Feed Hopper, 4,500 lb/hr | 2013 | 7.08 | 10-520 | 10-520 |
| 10-120 | Extruder 10, 4,500 lb/hr | 2013 | STAR, 7.25 (non-BACT) | 10-320 | 10-320 |

²³ vents inside silo bottom²⁴ vents inside silo bottom

| Emission Point ("E-KS-") | Description | Install Date | Applicable Regulations | Control ID ("C-KS-") | Release ID ("S-KS-") |
|---|--|--------------|-----------------------------------|-------------------------|-------------------------|
| 10-122 | Extruder 10 Die Head, 4,500 lb/hr | 2013 | STAR, 7.08, 7.25 (non-BACT) | 10-400 | 10-400 |
| Line 11 Pellet Feed Transfer Hoppers | | | | | |
| 11-060 | Tote Unload Unit 01 Process Collectors 11-A, 563 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-061 | Tote Unload Unit 01 Process Collectors 11-B, 563 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-066 | Waste Tote Process Collector 11-C, 563 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-062 | Process Collector 11-RG-1, 563 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-063 | Process Collector 11-RG-2, 563 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-064 | Process Collector 11-VN-1, 563 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-105 | Co-Extruder 11-A Pellet Feed Hopper, 563 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-115 | Co-Extruder 11-C Pellet Feed Hopper, 563 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| Sheet Line 11 | | | | | |
| 11-120-002 | Extruder 11 Feed Hopper, 4,500 lb/hr | 2013 | 7.08 | 10-520 | 10-520 |
| 11-120 | Extruder 11, 4,500 lb/hr | 2013 | STAR, 7.25 (non-BACT) | 10-320 | 10-320 |
| 11-122 | Extruder 11 Die Head, 4,500 lb/hr | 2013 | STAR, 7.08, 7.25 (non-BACT) | 10-400 | 10-400 |
| Sawing | | | | | |
| 10-270 | Masking Saw, 920 lb/hr [IA] | 2013 | 1.02, 7.08 | 10-260 | 10-260 |
| 10-173 | Miter Saw 1, 60 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 11-173 | Miter Saw 2, 60 lb/hr [IA] | 2013 | 1.02, 7.08 | None | NA |
| 10-163 ²⁵ | Line 10 Trim Saw Room, 4,500 lb/hr | 2013 | 7.08 | 10-184 | 10-184 |
| 11-163 ²⁶ | Line 11 Trim Saw Room, 4,500 lb/hr | 2013 | 7.08 | 11-184 | 11-184 |
| 10-250 | Off-Line Trim Saw, 900 lb/hr | 2013 | 7.08 | 10-206 | 10-206 |

²⁵ Contains Line 10 Trim Saws 1-4 and Cross Cut Saw²⁶ Contains Line 11 Trim Saws 1-4 and Cross Cut Saw

Control Devices

| Control ID ("C-KS-") | Description | Control Efficiency |
|---------------------------------|--|---|
| 10-320 ²⁷ | Model 15 Catalytic Oxidizer (CATOX) (2013) (Bypass) | 99.94% for VOC |
| 10-400 ²⁸ | Sheet Line Wet Rotoclone (2013) (Bypass) | 0% for PM/PM ₁₀ |
| | | 0% for VOC |
| 10-184 | Line 10 Bag Collector (2013) | 98% for PM/PM ₁₀ |
| 11-184 | Line 11 Bag Collector (2013) | 99.1% for PM/PM ₁₀ ²⁹ |
| 10-206 ³⁰ | Off Line Trim Saw Cyclone with Filters (2013) | 85% for PM/PM ₁₀ |
| 10-043 | Grinder Filter Collector (2013) | 96.6% for PM/PM ₁₀ ³¹ |
| 10-260 ³² | Masking Saw Filter Collector (2013) | 98% for PM/PM ₁₀ |
| 10-116 | KS Sheet Silo Bag Collector (2013) | 98% for PM/PM ₁₀ |
| 10-520 | KS Transfer System Bag Collector (2013) | 98% for PM/PM ₁₀ |
| 10-525 | KS Sheet House Vacuum Bag Collector (2013) | 98% for PM/PM ₁₀ |

²⁷ Stack test performed January 7 through 9, 2014, demonstrated a 99.94% control efficiency for VOC at an average temperature of 565° F.

²⁸ A stack test performed on the KS Wet Rotoclone (C-KS-10-400) on December 2, 2020, demonstrated a 51.8% control efficiency for PM and 20.5% for VOC. PM emissions at the inlet of the Rotoclone were 0.05 pound per hour. VOC emissions at the inlet of the Rotoclone were 0.25 pound per hour. The source will assume 0% efficiency for emissions calculations.

²⁹ Stack test performed on January 26, 2014, demonstrated a 99.1% control efficiency for PM.

³⁰ Does not have a pressure gauge

³¹ Stack test performed on January 26, 2014, demonstrated a 96.6% control efficiency for PM.

³² Does not have a pressure gauge

Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. Opacity

The owner or operator shall not cause to be discharged into the atmosphere any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 6.09, section 3.1 and Regulation 7.08, section 3.1.1]

b. PM/PM₁₀³³

- i. For EP E-KS-10-108 and 10-109, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 28.43 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 6.09, section 3.4]
- ii. For EP E-KS-10-555, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 21.55 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 7.08, section 3.3]
- iii. For EP E-KS-10-101, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 19.24 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.3]
- iv. For EP E-KS-10-106 and 10-107, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 12.52 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 7.08, section 3.3]
- v. For EP E-KS-10-546, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 9.74 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.3]
- vi. For EP E-KS-10-120-004 and 10-122, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 5.94 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 7.08, section 3.3]

³³ All emission points in this unit cannot exceed the hourly PM emission limits uncontrolled with the exception of EP E-KS-10-041, 10-045, 10-163, 11-163, and 10-250.

- vii. For EP E-KS-11-120-002, and 11-122, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 5.77 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 7.08, section 3.3]
- viii. For EP E-KS-10-525, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.3]
- ix. For EP E-KS-10-001 through 10-006, and 11-007 through 11-014; E-KS-10-060, 10-061, 10-066, 10-062, 10-063, and 10-064; E-KS-11-060, 11-061, 11-066, 11-062, 11-063, 11-064, 11-105, and 11-115; E-KS-10-270, 10-173, and 11-173; E-KS-10-041, 10-045, 10-163, 11-163, and 10-250, the owner or operator shall not cause to be discharged into the atmosphere PM in excess of 2.34 lb/hr based on actual operating hours in a calendar day for each piece of equipment. [Regulation 7.08, section 3.3]
- x. The owner or operator shall operate and maintain control devices C-KM-12-362, C-KM-16-329, C-KM-12-087, C-KM-16-286 and C-KM-12-371 at all times when an associated emission point is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions.

c. TAC

- i. The owner or operator shall not allow emissions of ethyl acrylate to exceed those listed in the following table³⁴:
[Regulation 5.21, section 4.11.2]

Table 7: Ethyl Acrylate TAC Limits

| Stack | Emission Limit |
|--|------------------------|
| Catalytic Oxidizer Stack (S-KS-10-320) | 24 pounds / 24 hours |
| Catalytic Oxidizer Bypass Stack (S-KS-TO-04) | 36 pounds / 24 hours |
| Sheet Line Wet Rotoclone Stack (S-KS-10-400) | 14.4 pounds / 24 hours |

d. VOC

- i. Until such time that more current performance test data are approved in writing by the District, the minimum combustion temperature of the Catalytic Oxidizer (C-KS-10-320) shall be 565°F. When the 15 minute average temperature or manually recorded hourly temperature is below the minimum combustion temperature, then emissions shall be considered as uncontrolled for that 15 minute period.

³⁴ These limits are based upon the December 4, 2013, STAR Demonstration of Environmental Acceptability.

- ii. The owner or operator shall limit the VOC emissions that are vented to the Catalytic Oxidizer Bypass Stack (S-KS-TO-04) to less than or equal to 1,212 pounds per consecutive 12-month period. [Regulation 2.17, section 5.1]
- iii. The owner or operator shall limit the VOC emissions that are vented to the Wet Rotoclone Bypass, S-KS-ROTO-2, to less than or equal to 101 pounds per consecutive 12-month period. [Regulation 2.17, section 5.1]
- iv. The owner or operator shall limit the non-BACT VOC emissions to less than or equal to 5 tons per consecutive month period for all emission points plantwide that are subject to Regulation 7.25 (EP E-KM-12-461, Oven, E-KS-10-120, 11-120, 10-122, 11-122) but that are not subject to a VOC BACT limit. [Regulation 7.25, section 3.1]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

There are no monitoring or record keeping requirements for this equipment.

b. PM/PM₁₀

- i. The owner or operator shall monthly perform and record the results of a visual inspection of the structural and mechanical integrity of each particulate matter handling control device for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed.
- ii. For the following particulate matter control devices, the pressure drops shall be as indicated in the KS Polymer Sheet System Control Devices Pressure Drop Ranges Table unless a new limit is approved in writing by the District:

Table 8: KS Polymer Sheet System Control Devices Pressure Drop Ranges

| Control ID ³⁵ | New Bag Lower Limit | Seasoned Bag Lower Limit | Upper Limit |
|--------------------------|------------------------------|-----------------------------|-------------|
| | [Inches Water Column (W.C.)] | | |

³⁵ The pressure drop range for Baghouse C-10-116 was based on manufacturer filter specifications in the permit application submitted February 2009. The pressure drop range for Baghouse C-10-520 was based on Young Industries Inc. design specifications. The pressure drop range for Baghouse C-10-525 was provided by Gardner Denver (November 25, 2008). Pressure drop range for baghouse C-11-184 is based on certification by the equipment manufacturer Donaldson Torit, and baghouse C-10-184 is based on a letter from MAC Process Incorporated.

| | | | |
|-------------|------|-----|------|
| C-KS-10-184 | 0.25 | 2.0 | 8.0 |
| C-KS-11-184 | 0.1 | 0.5 | 6.0 |
| C-KS-10-043 | 0.1 | 1.5 | 6.0 |
| C-KS-10-116 | 0.3 | 0.5 | 10.0 |
| C-KS-10-520 | 0.3 | 0.5 | 20.0 |
| C-KS-10-525 | 0.1 | 0.5 | 12.0 |

- (1) Upon replacement of the filter media, the pressure drop shall not fall below the new bag lower limit; and
 - (2) After the pressure drop reaches the seasoned bag lower limit for seven consecutive operating days, the pressure drop shall not fall below the seasoned bag lower limit.
- iii. For the particulate matter control devices listed in the KS Polymer Sheet System Control Devices Pressure Drop Ranges Table, the owner or operator shall monitor and record the pressure drop across each control device each operating day to ensure the pressure drop does not exceed the limits shown in the table. For any excursion from the stipulated pressure drop range the owner or operator shall record the number, duration and cause of each excursion, and a description of the corrective actions taken.
- iv. For any period of time when the process was operating and any of the associated particulate matter control devices were bypassed or not operating correctly, the owner or operator shall maintain the following records:
- (1) The start and stop time of the period;
 - (2) The throughput of the associated process equipment during the period; and
 - (3) The average pound per hour PM emissions.

c. TAC

The owner or operator shall daily calculate the 24 hour average emissions of ethyl acrylate from S-KS-10-320, S-KS-TO-04, and S-KS-10-400.

d. VOC

- i. When any emission point is being vented to the Catalytic Oxidizer, C-KS-10-320, the owner or operator shall monitor and record the combustion temperature of the Catalytic Oxidizer every sixty (60) seconds and shall daily calculate and record 15 minute block averages for the previous day. When the data acquisition system is down, record the temperature manually once per hour. The records shall include the date and time of the observations.

- ii. The owner operator shall keep a monthly record of what equipment is operating during each bypass of the Catalytic Oxidizer, C-KS-10-320, or the Wet Rotoclone, C-KS-10-400.
- iii. The owner or operator shall keep monthly records of the throughput of VOC containing materials and the amount of time that each piece of equipment is operating during each bypass or malfunction of their associated VOC control devices.
- iv. The owner or operator shall monthly calculate and record the previous consecutive 12-month VOC emissions from the:
 - (1) Catalytic Oxidizer Bypass Stack (S-KS-TO-04);
 - (2) Sheet Line Wet Rotoclone Bypass Stack (S-KS-ROTO-2); and
 - (3) EP E-KM-12-461, Oven, E-KS-10-120, 11-120, 10-122, 11-122.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. Opacity

There are no reporting requirements for this equipment.

b. PM/PM₁₀

- i. For each particulate matter control device, the owner or operator shall report the following:
 - (1) Identification of the operating parameter being monitored;
 - (2) Summary information on the quantity, duration, and cause of all excursions; and
 - (3) A description of any corrective actions taken.
- ii. For periods of time when an emission point is venting emissions to a particulate matter control device that was not operating within the correct parameters, was bypassed, or otherwise failed to control emissions as designed the following shall be reported:
 - (1) The start and stop time of the period;
 - (2) The throughput of the associated process equipment and the control device during the period;
 - (3) The average pound per hour emissions during the period for each emission point; and

- (4) A description of any corrective actions taken.

c. TAC

- i. The owner or operator shall report the daily average ethyl acrylate emissions for each month in the reporting period from the:
 - (1) Catalytic Oxidizer Stack (S-KS-10-320);
 - (2) Catalytic Oxidizer Bypass Stack (S-KS-TO-04); and
 - (3) Sheet Line Wet Rotoclone Stack (S-KS-10-400).

d. VOC

- i. The owner or operator shall report for each month in the reporting period the consecutive 12-month VOC emissions from:
 - (1) The Catalytic Oxidizer Bypass Stack, S-KS-TO-04;
 - (2) The Sheet Line Wet Rotoclone Bypass Stack, S-KS-ROTO-2; and
 - (3) EP E-KM-12-461, Oven, E-KS-10-120, 11-120, 10-122, 11-122.

Emission Unit IA1: Parts Washer**Applicable Regulations**

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|--|---|----------------------------|
| Regulation | Title | Applicable Sections |
| 6.18 | Standards of Performance for Solvent Metal Cleaning Equipment | 1 through 4 |

Equipment

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Release ID |
|-----------------------|-------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| KM-washer1 | KM parts washer in maintenance shop | 2000 | 6.18 | NA | NA |

Control Devices

There are no control devices associated with this equipment.

IA1 Specific Conditions**S1. Standards**

[Regulation 2.17, section 5.1]

a. VOC

- i. The owner or operator shall install, maintain, and operate the control equipment as follows: [Regulation 6.18, section 4]
 - (1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. [Regulation 6.18, section 4.1.1]
 - (2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. [Regulation 6.18, section 4.1.2]
 - (3) A permanent, conspicuous label summarizing the operating requirements shall be installed on or near the cold cleaner. [Regulation 6.18, section 4.1.3]
 - (4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner. [Regulation 6.18, section 4.1.4]
 - (5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. [Regulation 6.18, section 4.1.6]
 - (6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks. [Regulation 6.18, section 4.1.8]
- ii. For cold solvent cleaners (parts washers) the owner or operator shall observe at all times the following operating requirements: [Regulation 6.18, section 4.2]

- (1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. [Regulation 6.18, section 4.2.1]
 - (2) The solvent level in the cold cleaner shall not exceed the fill line. [Regulation 6.18, section 4.2.2]
 - (3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. [Regulation 6.18, section 4.2.3]
 - (4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. [Regulation 6.18, section 4.2.4]
 - (5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. [Regulation 6.18, section 4.2.5]
 - (6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. [Regulation 6.18, section 4.2.6]
 - (7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. [Regulation 6.18, section 4.2.7]
- iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F). [Regulation 6.18, section 4.3.2]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

For cold solvent cleaners (parts washers) the owner or operator shall maintain records that include the following for each purchase:

[Regulation 6.18, section 4.4.2]

- i. The name and address of the solvent supplier;
[Regulation 6.18, section 4.4.2.1]
- ii. The date of the purchase; [Regulation 6.18, section 4.4.2.2]
- iii. The type of the solvent; and [Regulation 6.18, section 4.4.2.3]
- iv. The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).
[Regulation 6.18, section 4.4.2.4]

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report in accordance with General Condition G12.

Emission Unit IA2 Emergency Generators

Applicable Regulations

| FEDERALLY ENFORCEABLE REGULATIONS | | |
|-----------------------------------|--|---|
| Regulation | Title | Applicable Sections |
| 40 CFR 63 Subpart ZZZZ | National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines | 63.6603, 63.6605, 63.6625, 63.6640, 63.6655 |

Equipment

| Emission Point | Description | Install Date | Applicable Regulations | Control ID | Release ID |
|----------------|--|--------------|------------------------------|------------|------------|
| EG1 | One (1) propane fueled emergency generator rated at 88 HP, make Ford, model 12-580 | 1966 | 40 CFR 63 Subpart ZZZZ | NA | NA |
| EG2 | One (1) propane fueled emergency generator rated at 88 HP, make Ford, model 16-580 | 1966 | | | |

Control Devices

There are no control devices associated with this equipment.

IA2 Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. HAP

- i. The owner or operator of an existing stationary RICE located at an area source of HAP emissions shall comply with the requirements Table 2(d) to 40 CFR 63 Subpart ZZZZ, as the following: [40 CFR 63.6603(a)]
 - (1) The owner or operator shall change the oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart. [40 CFR 63 Subpart ZZZZ, Table 2d.(5)(a)]
 - (2) The owner or operator shall inspect the air cleaners every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63 Subpart ZZZZ, Table 2d.(5)(b)]
 - (3) The owner or operator shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63 Subpart ZZZZ, Table 2d.(5)(c)]
- ii. General requirements for complying with 40 CFR 63, Subpart ZZZZ:
 - (1) The owner or operator shall be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to the RICE at all times. [40 CFR 63.6605(a)]
 - (2) At all times the owner or operator shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]
- iii. The owner or operator shall demonstrate continuous compliance with each emission limitation, operating limitation, and other applicable requirements in Table 2d to this subpart. [40 CFR 63.6640(a)]

- iv. The owner or operator shall report each instance in which you did not meet each emission limitation or operating limitation in Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE. [40 CFR 63.6640(b)]
- v. The owner or operator shall operate the emergency stationary RICE according to the requirements in §§63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §§63.6640(f)(1) through (4) below, is prohibited. If the owner or operator does not operate the engine according to the requirements in §§63.6640(f)(1) through (4), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
[40 CFR 63.6640(f)]
 - (1) There is no time limit on the use of the emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
 - (2) The owner or operator may operate the emergency stationary RICE for any combination of the purposes specified in §§63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §§63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2). [40 CFR 63.6640(f)(2)]
 - (a) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
[40 CFR 63.6640(f)(2)(i)]

- (b) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies, or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63.6640(f)(2)(ii)]
- (c) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6640(f)(2)(iii)]
- (3) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §63.6640(f)(2). Except as provided in §§63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(4)]
 - (a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR 63.6640(f)(4)(ii)]
 - (i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator. [40 CFR 63.6640(f)(4)(ii)(A)]
 - (ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR 63.6640(f)(4)(ii)(B)]
 - (iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR 63.6640(f)(4)(ii)(C)]
 - (iv) The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR 63.6640(f)(4)(ii)(D)]

- (v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
[40 CFR 63.6640(f)(4)(ii)(E)]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

- i. Monitoring, installation, collection, operation, and maintenance requirements: [40 CFR 63.6625]
- ii. The owner or operator shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)]
- iii. The owner or operator shall install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]
- iv. The owner or operator shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup. [40 CFR 63.6625(h)]
- v. The owner or operator has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is

greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(j)]

- vi. Recordkeeping requirements: [40 CFR 63.6655]
The owner or operator shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan. [40 CFR 63.6655(e)]

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[40 CFR 63 Subpart ZZZZ, Footnote 2 of Table 2d]

Insignificant Activities

| Description | Quantity | Basis |
|---|----------|-----------------------------|
| Internal Combustion Engines, Fixed or Mobile | 20 | Regulation 1.02, Appendix A |
| Plastics molding | 4 | |
| Processes used exclusively for extruding metals, minerals, or wood | 1 | |
| Lab Ventilating and Exhausting Systems, Non-radioactive materials | 1 | |
| Soil or Groundwater Contamination Remediation, passive or total removal | 1 | |
| EP 10-(001-006) Dryers 13-26 Silos Process Collectors | 7 | |
| EP 11-(007-014) Dryers 19-26 Silos Process Collectors | 7 | |
| EP 10-060 Tote Unload Unit 4 Process Collectors 10-A | 1 | |
| EP 10-061 Tote Unload Unit 4 Process Collectors 10-B | 1 | |
| EP 10-066 Waste Tote Process Collector 10-C | 1 | |
| EP 10-162 Process Collector 10-RG-1 | 1 | |
| EP 10-163 Process Collector 10-RG-2 | 1 | |
| EP 10-164 Process Collector 10-VN-1 | 1 | |
| EP 11-105 Co-Extruder 11-A Pellet Feed Hopper | 1 | |
| EP 11-115 Co-Extruder 11-C Pellet Feed Hopper | 1 | |
| EP 11-060 Tote Unload Unit 01 Process Collectors 11-A | 1 | |
| EP 11-061 Tote Unload Unit 01 Process Collectors 11-B | 1 | |
| EP 11-066 Waste Tote Process Collector 11-C | 1 | |
| EP 11-162 Process Collector 11-RG-1 | 1 | |
| EP 11-163 Process Collector 11-RG-2 | 1 | |
| EP 11-164 Process Collector 11-VN-1 | 1 | |
| Portable Diesel/Gasoline Storage Tanks (< 500 gal) | 2 | Regulation 1.02, Appendix A |
| VOC Storage Vessels < 250 gal | 29 | |
| Direct-Fired Space Heaters (< 10 MMBtu/hr) | 4 | |
| Emergency Generators (88 HP each, propane fired, 1966) | 2 | |
| EP 10-106 Silo 1 | 1 | |
| EP 10-107 Silo 2 | 1 | |
| EP 10-041 Grinder 1 | 1 | |
| EP 10-045 Grinder 2 | 1 | |
| EP 10-173 Miter Saw 1 | 1 | Regulation 1.02, Appendix A |
| EP 10-173 Miter Saw 2 | 1 | |
| EP 10-120-004 Extruder 10 Feed Hopper | 1 | |
| EP 11-120-002 Extruder 11 Feed Hopper | 1 | |

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
6. The District has determined that no monitoring, recordkeeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

Attachment A – Default Emission Factors, Calculation Methodologies, Stack Tests and Control Efficiencies

Generally, emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc.) or hours of operation of the equipment by the appropriate emission factor and accounting for any control devices unless otherwise approved in writing by the District.³⁶

| Bulk Loading/Shipping System Process Equipment | | | |
|--|-----------------------------------|-----------------------------|--|
| EP ID ("E-KM-") | Description | Control Device ("C-KM-") | Acceptable Emission Factor Sources |
| 16-630 | Clear Storage Silo | 16-671 | 25 lbs fines/100,000 lbs processed [PM – Fines Study] |
| 16-635 | Clear Storage Silo | | |
| 16-640 | Clear Storage Silo | | |
| 16-645 | Clear Storage Silo | | |
| 16-650 | Clear Storage Silo | | |
| 16-655 | Clear Storage Silo | | |
| 16-690 | Blend Tank | | |
| 16-644 | Silo Fines Collection | 16-644 | |
| 12-614 | DCL Head Station 1 | 12-613 | |
| 12-615 | DCL Head Station 2 | | |
| 12-616 | DCL Head Station 3 | | |
| 12-617 | DCL Head Station 4 | | |
| 12-376 | Railcar Unloading Filter | | |
| 12-377 | Railcar Unloading Process Cyclone | | |
| 12-380 | Red Storage Silo | 12-390 | |
| 12-385 | Red Storage Silo | | |
| 12-338 | Red Bulk Loading | 12-338 | |

| Bulk Loading/Shipping System Control Devices | | | |
|--|-------------------------------|---|---|
| ID ("C-KM-") | Description | PM/PM ₁₀ Control Efficiency (%) | Basis |
| 16-671 | Silo Process Filter Collector | 98 | 98% for Bag & Filter Collectors (Baghouses) and 85% for Dual Cyclones |
| 16-644 | Silo Fines Bag Collector | 98 | |
| 12-613 | DCL Loading Filter Collector | 98 | |

³⁶ Unless otherwise noted, it is assumed that PM = PM₁₀

| | | | |
|--------|--------------------------------|----|--|
| 12-390 | Red Silo Process Bag Collector | 98 | |
| 12-338 | Red Silo Loading Cyclone | 85 | |

| KM Extruder System Process Equipment | | | |
|--------------------------------------|----------------------------|-----------------------------|--|
| EP ID ("E-KM-") | Description | Control Device ("C-KM-") | Acceptable Emission Factor Sources ³⁷ |
| 12-162 | KM1 Die Head | 16-547 | PM inlet = 0.18 lb/hr each [07/2020 and 12/2020 Stack Tests] VOC inlet = 0.42 lb/hr each [12/2020 Stack Test] |
| 16-162 | KM2 Die Head | | |
| 12-701 | Chemical Sewer Tank | N/A | 1.86E-08 lb/gallon ³⁸ |
| 12-367 | KM1 Hub Seal | 12-199 | 3.30 lb VOC/hr |
| 12-105 | KM1 Recycle Tank | 12-199 | 3.80 lb VOC/hr |
| 12-110 | TVM Testing Tank | 12-199 | 0.43 lb VOC/hr |
| 12-115 | EA Tank | 12-199 | 0.26 lb VOC/hr |
| 12-140 | KM1 Reactor | 12-199 | 5.50 lb VOC/hr |
| 12-150 | KM1 Dump Tank | 12-199 | 0.001 lb VOC/hr |
| 12-160 | KM1 Extruder | 12-199 | 3.30 lb VOC/hr |
| 12-190 | Rundown Tank | 12-199 | 0.43 lb VOC/hr |
| 16-367 | KM2 Hub Seal | 12-199 | 3.30 lb VOC/hr |
| 16-105 | KM2 Recycle Tank | 12-199 | 3.80 lb VOC/hr |
| 16-110 | MMA Tank | 12-199 | 3.14 lb VOC/hr |
| 16-115 | TVM Holding Tank | 12-199 | 0.43 lb VOC/hr |
| 16-140 | KM2 Reactor | 12-199 | 5.50 lb VOC/hr |
| 16-150 | KM2 Dump Tank | 12-199 | 0.001 lb VOC/hr |
| 16-160 | KM2 Extruder | 12-199 | 3.30 lb VOC/hr |
| 12-458 | nDDM Tank | 12-199 | 0.009 lb VOC/hr |
| 12-118 | nDDM Weigh Tank | 12-199 | 0.002 lb VOC/hr |
| 12-465 | KM Reactor Feed Tank #1 | 12-199 | 5.50 lb VOC/hr |
| 16-465 | KM Reactor Feed Tank #2 | 12-199 | 5.50 lb VOC/hr |
| 12-455 | DtDDS Tank | 12-199 | 0.001 lb VOC/hr |
| 12-461 | DTAC Tank | NA | 0.011 lb VOC/hr ³⁹ |
| 12-127 | KM1 Methyl Salicylate Tank | 12-199 | 0.005 lb VOC/hr |

³⁷ Fugitive: VOC – LeakDas³⁸ US EPA AP-42 Chapter 7.1³⁹ US EPA AP-42 Chapter 7.1

| KM Extruder System Process Equipment | | | |
|--------------------------------------|----------------------------|-----------------------------|--|
| EP ID ("E-KM-") | Description | Control Device ("C-KM-") | Acceptable Emission Factor Sources ³⁷ |
| 12-155 | KM1 "Color" Additive Tank | 12-199 | 0.006 lb VOC/hr |
| 12-156 | KM1 "Color" Additive Tank | 12-199 | 0.006 lb VOC/hr |
| 12-165 | KM1 "Clear" Additive Tank | 12-199 | 0.006 lb VOC/hr |
| 12-166 | KM1 "Clear" Additive Tank | 12-199 | 0.006 lb VOC/hr |
| 16-127 | KM2 Methyl Salicylate Tank | 12-199 | 0.005 lb VOC/hr |
| 16-155 | KM2 "Color" Additive Tank | 12-199 | 0.006 lb VOC/hr |
| 16-156 | KM2 "Color" Additive Tank | 12-199 | 0.006 lb VOC/hr |
| 16-165 | KM2 "Clear" Additive Tank | 12-199 | 0.006 lb VOC/hr |
| 16-166 | KM2 "Clear" Additive Tank | 12-199 | 0.006 lb VOC/hr |
| 12-256 | KM1 Rework Process Cyclone | 12-257 | 25 lbs fines/100,000 lbs processed [PM – Fines Study] |
| 16-331 | KM2 Rework Process Cyclone | 16-328 | |
| 16-348 | KM2 DR Process Cyclone | | |

| KM Extruder System Control Devices | | | |
|------------------------------------|--------------------------|----------------------------|--|
| ID ("C-KM-") | Description | Control Efficiency (%) | Basis |
| 16-547 | KM Wet Rotoclone | 0 for PM/PM ₁₀ | Stack Test (07/2020 and 12/2020) |
| | | 0 for VOC | |
| 12-199 | Thermal Oxidizer (TO) | 99.98 for VOC | Stack Test (10/2010) |
| 12-257 | KM1 Rework Bag Collector | 98 for PM/PM ₁₀ | 98% for Bag & Filter Collectors (Baghouses) 85% for Dual Cyclones |
| 16-328 | KM2 Rework Bag Collector | 98 for PM/PM ₁₀ | |

| KM Packout System Process Equipment | | | |
|-------------------------------------|-------------------------------------|-----------------------------|--|
| EP ID ("E-KM-") | Description | Control Device ("C-KM-") | Acceptable Emission Factor Sources |
| 12-267 | KM1 Witte Screener | 12-270 | 25 lbs fines/100,000 lbs processed [PM – Fines Study] |
| 12-363 | KM1 Pellet Transfer Process Cyclone | 12-362 | |
| 16-272 | KM2 Witte Screener | 16-275 | |

| KM Packout System Process Equipment | | | |
|-------------------------------------|-------------------------------------|-----------------------------|------------------------------------|
| EP ID ("E-KM-") | Description | Control Device ("C-KM-") | Acceptable Emission Factor Sources |
| 16-330 | KM2 Pellet Transfer Process Cyclone | 16-329 | |
| 12-087 | Packout House Vacuum | 12-087 | |
| 12-369 | Pelletron | 12-371 | |
| 12-343 | KM1 Fill Station | 16-286 | |
| 16-303 | KM2 Fill Station | | |
| 16-337 | 3 rd Witte Screener | 16-338 | |

| KM Packout System Control Devices | | | |
|--|------------------------------------|--|--|
| ID ("C-KM-") | Description | PM/PM₁₀ Control Efficiency (%) | Basis |
| 12-270 | KM1 Dual Cyclone | 85 | 98% for Bag & Filter Collectors (Baghouses) 85% for Dual Cyclones |
| 12-362 | KM1 Pellet Transfer Bag Collector | 98 | |
| 16-275 | KM2 Dual Cyclone | 85 | |
| 16-329 | KM2 Pellet Transfer Bag Collector | 98 | |
| 12-087 | KM House Vacuum Bag Collector | 98 | |
| 12-371 | KM Pelletron Filter Collector | 98 | |
| 16-286 | KM Packaging Station Bag Collector | 98 | |
| 16-338 | 3 rd Witte Dual Cyclone | 85 | |

| KS Polymer Sheet System Process Equipment | | | |
|--|--|---|---|
| EP ID ("E-KS-") | Description | Control Device ("C-KM-") | Acceptable Emission Factor Sources |
| 10-108 | Storage Silo | 10-116 | 25 lbs fines/100,000 lbs processed |
| 10-109 | Storage Silo | 10-116 | 25 lbs fines/100,000 lbs processed |
| 10-106 | Silo 1 | None | 0.6 lb PM/hr |
| 10-107 | Silo 2 | None | 0.6 lb PM/hr |
| 10-101 | Bag Tote Dumper | 10-520 | 25 lbs fines/100,000 lbs processed |
| 10-546 | Pellet Receiver | 10-520 | 25 lbs fines/100,000 lbs processed |
| 10-555 | Pellet Receiver | 10-520 | 25 lbs fines/100,000 lbs processed |
| 10-041 | Grinder 1 | 10-043 | 40 lbs fines/100,000 lbs processed |
| 10-045 | Grinder 2 | 10-043 | 40 lbs fines/100,000 lbs processed |
| 10-525 | Bagging House Vacuum | 10-525 | 25 lbs fines/100,000 lbs processed |
| 10-001 through 10-006 | Dryers 13-18 Silos Process Collectors | None | 25 lbs fines/100,000 lbs processed |
| 11-007 through 11-014 | Dryers 19-26 Silos Process Collectors | None | 25 lbs fines/100,000 lbs processed |
| 10-060 | Tote Unload Unit 4 Process Collectors 10-A | None | 0.017 lb PM/hr |
| 10-061 | Tote Unload Unit 4 Process Collectors 10-B, | None | 0.017 lb PM/hr |
| 10-066 | Waste Tote Process Collector 10-C | None | 0.017 lb PM/hr |
| 10-062 | Process Collector 10-RG-1 | None | 0.017 lb PM/hr |
| 10-063 | Process Collector 10-RG-2 | None | 0.017 lb PM/hr |
| 10-064 | Process Collector 10-VN-1 | None | 0.017 lb PM/hr |
| 10-120-004 | Extruder 10 Feed Hopper | 10-520 | 25 lbs fines/100,000 lbs processed |
| 10-120 | Extruder 10 | 10-320 | 1.43 lb VOC/hr |
| 10-122 | Extruder 10 Die Head | 10-400 | PM inlet = 0.04 lb/hr each VOC inlet = 0.19 lb/hr each [12/2020 Stack Test] |
| 11-122 | Extruder 11 Die Head | 10-400 | |
| 11-060 | Tote Unload Unit 01 Process Collectors 11-A | None | 0.017 lb PM/hr |
| 11-061 | Tote Unload Unit 01 Process Collectors 11-B | None | 0.017 lb PM/hr |
| 11-066 | Waste Tote Process Collector 11-C | None | 0.017 lb PM/hr |

| | | | |
|------------|-------------------------------------|--------|------------------------------------|
| 11-062 | Process Collector 11-RG-1 | None | 0.017 lb PM/hr |
| 11-063 | Process Collector 11-RG-2 | None | 0.017 lb PM/hr |
| 11-064 | Process Collector 11-VN-1 | None | 0.017 lb PM/hr |
| 11-105 | Co-Extruder 11-A Pellet Feed Hopper | None | 0.006 lb PM/hr |
| 11-115 | Co-Extruder 11-C Pellet Feed Hopper | None | 0.006 lb PM/hr |
| 11-120-002 | Extruder 11 Feed Hopper | 10-520 | 25 lbs fines/100,000 lbs processed |
| 11-120 | Extruder 11 | 10-320 | 1.43 lb VOC/hr |
| 10-270 | Masking Saw | 10-260 | 0.183 lb PM/hr |
| 10-173 | Miter Saw 1 | None | 0.03 lb PM/hr |
| 11-173 | Miter Saw 2 | None | 0.03 lb PM/hr |
| 10-163 | Line 10 Trim Saw Room | 10-184 | 5.64 lb PM/hr |
| 11-163 | Line 11 Trim Saw Room | 11-184 | 5.64 lb PM/hr |
| 10-250 | Off-Line Trim Saw | 10-206 | 1.69 lb PM/hr |

| KS Polymer Sheet System Control Devices | | | |
|---|--|------------------------------|--|
| ID ("C-KS-") | Description | Control Efficiency (%) | Basis |
| 10-320 | Model 15 Catalytic Oxidizer (CATOX) | 99.94 for VOC | Stack Test (1/9/2014) |
| 10-400 | Sheet Line Wet Rotoclone | 0 for PM/PM ₁₀ | Stack Test (12/2020) |
| | | 0 for VOC | |
| 10-043 | Grinder Filter Collector | 96.6 for PM/PM ₁₀ | Stack Test (1/26/2014) |
| 11-184 | Line 11 Bag Collector | 99.1 for PM/PM ₁₀ | Stack Test (1/26/2014) |
| 10-184 | Line 10 Bag Collector | 98 for PM/PM ₁₀ | 98% for Bag & Filter Collectors (Baghouses) 85% for Dual Cyclones |
| 10-206 | Off Line Trim Saw Cyclone with Filters | 85 for PM/PM ₁₀ | |
| 10-260 | Masking Saw Filter Collector | 98 for PM/PM ₁₀ | |
| 10-116 | KS Sheet Silo Bag Collector | 98 for PM/PM ₁₀ | |
| 10-520 | KS Transfer System Bag Collector | 98 for PM/PM ₁₀ | |
| 10-525 | KS Sheet House Vacuum Bag Collector | 98 for PM/PM ₁₀ | |